WHAT IS CLAIMED IS:

1. A humanized anti-TAG-72 antibody comprising:

light chain Complementarity Determining Regions (L-CDRs), comprising L-CDR1, L-CDR2 and L-CDR3; and heavy chain Complementarity Determining Regions (H-CDRs), comprising H-CDR1, H-CDR2 and H-CDR3,

wherein L-CDR3, H-CDR1, H-CDR2 and H-CDR3 are from a non-human antibody and at least one of L-CDR1 and L-CDR2 are human antibody sequences.

2. The humanized antibody of claim 1, wherein L-CDR1 is from a human antibody.

3. The humanized antibody of claim 2, wherein L-CDR1 is from human monoclonal antibody LEN.

4. The humanized antibody of claim 1, wherein L-CDR2 from a human antibody.

5. The humanized antibody of claim 4, wherein L-CDR2 is from human monoclonal antibody LEN.

6. The humanized antibody of claim 1, wherein both L-CDR1 and L-CDR2 are human antibody sequences.

7. The humanized antibody of claim 1, wherein L-CDR1 and L-CDR2 are human antibody sequences from the same human antibody.

8. The humanized antibody of claim 7, wherein L-CDR1 and L-CDR2 are human antibody sequences from human monoclonal antibody LEN.

9. The humanized antibody of claim 6, wherein L-CDR1 and L-CDR2 are human antibody sequences from different human antibodies.

10. The humanized antibody of claim 1, wherein L–CDR3, H–CDR1, H–CDR2 and H–CDR3 are from murine monoclonal antibody CC49.

11. A humanized anti–TAG–72 antibody comprising:

light chain Complementarity Determining Regions (L–CDRs), comprising L–CDR1, L–CDR2 and L–CDR3; and heavy chain Complementarity Determining Regions (H–CDRs), comprising H–CDR1, H–CDR2 and H–CDR3,

wherein at least one amino acid of positions 60, 61, 62, or 64 in H–CDR2 is replaced with a corresponding amino acid from a human antibody.

12. The humanized antibody of claim 11, wherein the human antibody is 21/28'CL.

13. The humanized antibody of claim 11, wherein the amino acid at position 97 of L–CDR3 is replaced with a corresponding amino acid from a human antibody.

14. The humanized antibody of claim 11, wherein at least one of L–CDR1 and L–CDR2 are human antibody sequences.

15. The humanized antibody of claim 14, wherein L–CDR1 is a human antibody sequence.

16. The humanized antibody of claim 15, wherein L–CDR1 is from human monoclonal antibody LEN.

17. The humanized antibody of claim 14, wherein L–CDR2 is a human antibody sequence.

18. The humanized antibody of claim 17, wherein L–CDR2 is from human monoclonal antibody LEN.

19. The humanized antibody of claim 17, wherein both L–CDR1 and L–CDR2 are human antibody sequences.

20. The humanized antibody of claim 19, wherein L–CDR1 and L–CDR2 are human antibody sequences from the same human antibody.

21. The humanized antibody of claim 20, wherein L–CDR1 and L–CDR2 are from human monoclonal antibody LEN.

22. The humanized antibody of claim 19, wherein L–CDR1 and L–CDR2 are human antibody sequences from different human antibodies.

23. A humanized anti–TAG–72 antibody comprising:

light chain Complementarity Determining Regions (L–CDRs), comprising L–CDR1, L–CDR2 and L–CDR3; and heavy chain Complementarity Determining Regions (H–CDRs), comprising H–CDR1, H–CDR2 and H–CDR3,

wherein an amino acid at position 97 of L–CDR3 is replaced with a corresponding amino acid from a human antibody.

24. The humanized antibody of claim 23, wherein at least one amino acid of positions 60, 61, 62, or 64 in H–CDR2 is replaced with a corresponding amino acid from a human antibody.

25. The humanized antibody of claim 23, wherein at least one of L–CDR1 and L–CDR2 are human antibody sequences.

26. The humanized antibody of claim 25, wherein L–CDR1 is a human antibody sequence.

27. The humanized antibody of claim 26, wherein L–CDR1 is from human monoclonal antibody LEN.

28. The humanized antibody of claim 25, wherein L–CDR2 is a human antibody sequence.

29. The humanized antibody of claim 28, wherein L–CDR2 is from human monoclonal antibody LEN.

30. The humanized antibody of claim 25, wherein both L–CDR1 and L–CDR2 are from human antibody sequences.

31. The humanized antibody of claim 30, wherein L–CDR1 and L–CDR2 are human antibody sequences from the same human antibody.

32. The humanized antibody of claim 31, wherein L–CDR1 and L–CDR2 are from human antibody sequences from human monoclonal antibody LEN.

33. The humanized antibody of claim 30, wherein L–CDR1 and L–CDR2 are human antibody sequences from different human antibodies.

34. A humanized anti–TAG–72 antibody comprising:

light chain Complementarity Determining Regions (L–CDRs), comprising L–CDR1, L–CDR2 and L–CDR3; and heavy chain Complementarity Determining Regions (H–CDRs), comprising H–CDR1, H–CDR2 and H–CDR3,

wherein residues at positions 94 and 97 in L–CDR3 are from a non–human anti–TAG–72 antibody.

35. A humanized anti–TAG–72 antibody comprising:

light chain Complementarity Determining Regions (L–CDRs), comprising L–CDR1, L–CDR2 and L–CDR3; and heavy chain Complementarity Determining Regions (H–CDRs), comprising H–CDR1, H–CDR2 and H–CDR3,

wherein residues at positions 31, 32 and 34 in H–CDR1 are from a non–human anti–TAG–72 antibody.

36. A nucleic acid sequence expressing the humanized antibody of any of claims 1, 11, 23, 34 or 35.

37. A vector expressing the humanized antibody of any of claims 1, 11, 23, 34 or 35.

38. A composition for treatment of cancer, comprising the humanized antibody of any of claims 11, 11, 23, 34 or 35.

39. A composition for detecting cancer cells, comprising the humanized antibody of any of claims 1, 11, 23, 34 or 35.

40. A composition of for detecting cancer cells, comprising a polypeptide capable of specifically binding TAG–72, said polypeptide comprising a functional fragment of the humanized antibody of any of claims 1, 11, 23, 34 or 35.

41. The composition of claim 40, wherein the polypeptide comprises a fragment selected from the group consisting of Fv, Fab, and $F(ab')_2$.

42. A method for treating cancer comprising:

administering the humanized antibody of any of claims 1, 11, 23, 34 or 35 to a patient

43. A method of detecting cancer cells, comprising:

contacting cells with the humanized antibody of any of claims 1, 11, 23, 34 or 35.

44. The method of claim 43, wherein the humanized antibody is labeled.

45. The method of claim 43, wherein the humanized antibody is detected using a labeled secondary antibody.

46. A method of detecting cancer cells, comprising:

contacting cells with composition comprising a polypeptide capable of specifically binding TAG–72, said polypeptide comprising a functional fragment of the humanized antibody of any of claims 11, 11, 23, 34 or 35.

47. The method of claim 46, wherein the polypeptide comprises a fragment selected from the group consisting of Fv, Fab, and $F(ab')_2$.